

What is claimed is:

1. A compressed air processing system, comprising:
 - an inlet connection; said inlet connection being designed and arranged to be connected to a conduit being connected to a compressor;
 - a pressure control unit;
 - a multi-circuit protection valve;
 - a plurality of outlet connections, each of said outlet connections being designed and arranged to be connected to a circuit;
 - a parking brake connection, said parking brake connection being designed and arranged to be connected to a conduit being connected to a parking brake cylinder;
 - an electronic control unit, said electronic control unit including an electric input connection for a control signal; and
 - a valve arrangement,said valve arrangement being designed and arranged to aerate and lock said parking brake connection in a controlled way due to a signal being generated by said electronic control unit, and
 - said valve arrangement being designed and arranged to deaerate said parking brake connection due to a signal being generated by said electronic control unit.
2. The compressed air processing system of claim 1, wherein said valve arrangement includes a first switching valve and a second switching valve, said first switching valve and said second switching valves being designed and arranged to be separately controllable, said first switching valve having a passage position and a locking position and said second switching valve having a locking position and a deaerating position.

3. The compressed air processing system of claim 1, wherein said valve arrangement includes a 3/2 ways valve, said 3/2 ways valve having its own deaerating system.
4. The compressed air processing system of claim 1, further comprising a pressure sensor, said pressure sensor being arranged between said valve arrangement and said parking brake connection, said pressure sensor being designed and arranged to produce a signal to be transmitted to said electronic control unit.
5. The compressed air processing system of claim 1, further comprising a central aerating system for all circuits and a conduit leading to said parking brake connection, said valve arrangement being located in said conduit leading to said parking brake connection, said valve arrangement being connected to said central aerating system in a way to bypass overflow valves of other circuits.
6. The compressed air processing system of claim 1, further comprising a central aerating system for all circuits and a conduit leading to said parking brake connection, said valve arrangement being arranged in said conduit, said conduit being connected to said central aerating system downstream of a pressure protection valve of a different circuit.
7. The compressed air processing system of claim 1, wherein said valve arrangement includes at least one switching valve being designed and arranged to be pre-controlled by at least one solenoid valve.
8. The compressed air processing system of claim 1, wherein said valve arrangement includes at least one directly controlled solenoid valve.

9. The compressed air processing system of claim 1, wherein said valve arrangement includes two separately controllable switching valves, said switching valves being arranged in series with respect to a conduit leading to said parking brake connection.

10. The compressed air processing system of claim 1, further comprising a mechanical spring, said mechanical spring being designed and arranged to determine a position in which said parking brake connection is deaerated.

11. A compressed air processing system, comprising:
a plurality of circuits;
a compressor;
a first conduit, said first conduit being connected to said compressor;
an inlet connection; said inlet connection being designed and arranged to be connected to said first conduit;
a pressure control unit;
a plurality of outlet connections, each of said outlet connections being designed and arranged to be connected to one of said circuits;
a parking brake cylinder;
a second conduit, said second conduit being designed and arranged to be connected to said parking brake cylinder;
a parking brake connection, said parking brake connection being designed and arranged to be connected to said second conduit;
an electronic control unit, said electronic control unit including an electric input connection for a control signal; and
a valve arrangement,
said valve arrangement being designed and arranged to aerate and lock said parking brake connection in a controlled way due to a signal being generated by said electronic control unit, and

said valve arrangement being designed and arranged to deaerate said parking brake connection due to a signal being generated by said electronic control unit.

12. The compressed air processing system of claim 11, wherein said valve arrangement includes a first switching valve and a second switching valve, said first switching valve and said second switching valves being designed and arranged to be separately controllable, said first switching valve having a passage position and a locking position and said second switching valve having a locking position and a deaerating position.

13. The compressed air processing system of claim 11, wherein said valve arrangement includes a 3/2 ways valve, said 3/2 ways valve having its own deaerating system.

14. The compressed air processing system of claim 11, further comprising a pressure sensor, said pressure sensor being arranged between said valve arrangement and said parking brake connection, said pressure sensor being designed and arranged to produce a signal to be transmitted to said electronic control unit.

15. The compressed air processing system of claim 11, further comprising a central aerating system for all circuits and a conduit leading to said parking brake connection, said valve arrangement being located in said conduit leading to said parking brake connection, said valve arrangement being connected to said central aerating system in a way to bypass overflow valves of other circuits.

16. The compressed air processing system of claim 11, further comprising a central aerating system for all circuits and a conduit leading to said parking brake connection, said valve arrangement being arranged in said conduit,

said conduit being connected to said central aerating system downstream of a pressure protection valve of a different circuit.

17. The compressed air processing system of claim 11, wherein said valve arrangement includes at least one switching valve being designed and arranged to be pre-controlled by at least one solenoid valve.

18. The compressed air processing system of claim 11, wherein said valve arrangement includes at least one directly controlled solenoid valve.

19. The compressed air processing system of claim 11, wherein said valve arrangement includes two separately controllable switching valves, said switching valves being arranged in series with respect to a conduit leading to said parking brake connection.

20. The compressed air processing system of claim 11, further comprising a mechanical spring, said mechanical spring being designed and arranged to determine a position in which said parking brake connection is deaerated.